



Implantable port-related bloodstream infections

Major findings from a multi-centre survey, 2007-2018

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Background

Implantable ports (IP) are increasingly used, especially during cancer treatment. IP-related infections are associated with morbidity and mortality in vulnerable patients, and the preventable part of these infections must be prevented.

In France, ongoing survey of bloodstream infections (BSI) associated with IP devices is mandatory.

Objectives

To identify training priorities, we analyzed the data obtained in the course of annual survey performed at a regional level, 2007-2018.

Methods

The 30 major hospitals from region Centre Val de Loire of France (2.8 M inhabitants) participated in the study. For each BSI during 3 months each year, the infection control practitioners documented patient age and sex, bacteria/fungi responsible for BSI, portal of entry of the BSI, date of port implantation and removal, and patient outcome.

Results

921 IP-associated BSI were identified, 49.3% being diagnosed into cancerology units, and 6% followed by patient death.

During the study, incidence rate increased (+220%) but the distribution of the different bacteria/fungi did not vary: most BSI were associated with coagulase negative staphylococci (57%), *S. aureus* (17%) and enterobacteriaceae (16%). *Pseudomonas aeruginosa*, *Enterococcus* sp and *Candida* sp were scarce (3, 3 and 4%, respectively).

Among the 109 BSI diagnosed in 2018, the date of implantation was documented in 89 cases. Infection mostly occurred at least 1 month after implantation (61%) but rarely during the first week (12%). Removal of the port was notified in 51 cases, with a median duration of 4 days between BSI and removal.

Conclusion

In connection with the increased use of IP, BSI become frequent events. Infection generally occurs long after implantation, and involves bacteria colonizing the skin. Our findings prompt to focus efforts on the need to improve respect of aseptic in the course of port use and manipulation of the perfusion lines by the healthcare workers.

List of participants

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